

**REMARKS**

Claims 21-32 and 34-54 were pending in this application.

Claims 26-32 have been withdrawn as being directed to non-elected species of claims.

Claims 36-39 have been allowed.

Claims 40-54 were subject to a restriction.

Claims 21, 34, and 35 have been rejected.

Claims 22-25 have been objected to.

No claims have been amended.

Claims 21-32 and 34-54 remain pending in this application.

Reconsideration and full allowance of Claims 21-32 and 34-54 are respectfully requested.

**I. ALLOWABLE CLAIMS**

The Applicant thanks the Examiner for the indication that Claims 36-39 are allowable. These claims have not been amended and therefore remain in condition for allowance. The Applicant also thanks the Examiner for the indication that Claims 22-25 would be allowable if rewritten in independent form to incorporate the elements of their respective base claims and any intervening claims. Because the Applicant believes that the remaining claims in this application are allowable, the Applicant has not rewritten Claims 22-25 in independent form.

**II. RESTRICTION**

The Office Action asserts that newly added Claims 40-54 are “directed to an invention

that is independent or distinct from the invention originally claimed.” (*Office Action, Page 2, Section 1*).

A Restriction Requirement must provide the particular factual basis for asserting that restriction is necessary. In particular, the “particular reasons ... for holding that the inventions as claimed are either independent or distinct should be concisely stated.” (*MPEP § 808.01*). A “mere statement of conclusion” is inadequate. (*MPEP § 808.01*). Moreover, in making a restriction, it is the “claimed subject matter that is considered,” and “such claimed subject matter must be compared in order to determine the question of distinctness or independence.” (*MPEP § 806.01*). If the search and examination of all claims in an application can be made without serious burden, the Examiner must examine all claims on the merits. (*MPEP § 803*).

The Office Action merely asserts that the “newly claimed systems and devices do not include the sheet making structure of the original claims, only some parts of the original claims are recited, and therefore, the newly added claims are distinct from said original claims.” (*Office Action, Page 2, Section 1*). This fails to satisfy the burden for making a restriction. The fact that new claims may be broader than original claims is not a proper basis for restricting the claims.

According to the MPEP, two inventions are “distinct if the inventions as claimed are not connected in at least one of design, operation, or effect (e.g., can be made by, or used in, a materially different process) and wherein at least one invention is PATENTABLE (novel and nonobvious) OVER THE OTHER (though they may each be unpatentable over the prior art).” (*MPEP § 802.01*).

Claims 40-46 are clearly “connected” in “design, operation, or effect” to other examined

claims. The following illustrates the similarity between Claim 40 (restricted) and Claim 36 (examined).

<u><b>Claim 40 (Restricted)</b></u>	<u><b>Claim 36 (Examined)</b></u>
a steam actuator associated with an outlet chamber	a plurality of steam actuators ..., each steam actuator having an outlet chamber
the steam actuator operable to release steam of an adjustable magnitude and in an adjustable cross-directional shape through the outlet chamber	the outlet chamber in each steam actuator controllable to release steam to vary both the magnitude and the cross-directional shape within the slice
a scanner operable to measure one or more properties of a sheet of material	at least one scanner operable to measure one or more properties of the sheet
a controller operable to identify a specified magnitude and a specified cross-directional shape for the steam based on measurements from the scanner	a controller in communication with the at least one scanner and operable to calculate the magnitude and the cross-directional shape for each steam actuator
the controller also operable to cause the steam actuator to release steam of the specified magnitude and in the specified cross-directional shape	[the controller is operable] to cause each outlet chamber to release steam with a corresponding magnitude and cross-directional shape

As can be seen here, the system of Claim 40 is clearly “connected” in “design” and/or “operation” and/of “effect” to the system recited in Claim 36. The fact that Claim 40 does not contain all elements from Claim 36 is irrelevant – Claims 36 and 40 do not recite “distinct” inventions, so restriction of Claims 40-46 from the other examined claims is improper.

Regarding Claims 47-54, Claim 47 recites a “steam actuator” and an “outlet chamber,” where the “steam actuator is operable to release steam of an adjustable magnitude and in an adjustable cross-directional shape through the outlet chamber.” Claim 36 recites a “plurality of steam actuators” each having an “outlet chamber,” where the “outlet chamber in each steam actuator [is] controllable to release steam to vary both the magnitude and the cross-directional shape within the slice.” As can be seen here, the apparatus of Claim 47 is clearly “connected” in

“design” and/or “operation” and/of “effect” to the system recited in Claim 36. As a result, Claims 36 and 47 do not recite “distinct” inventions, so restriction of Claims 47-54 from the other examined claims is improper.

Accordingly, the Applicant respectfully requests withdrawal of the restriction and examination of all pending claims.

### III. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 21, 34, and 35 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,152,202 to DeLigt (“*DeLigt*”). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP* § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445,

24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)).

The Office Action simply rejects Claims 21, 34, and 35 in view of *DeLigt* by incorporating the prior Office Action, even though the prior Office Action clearly misstates the teachings of *DeLigt*. An express stated purpose of *DeLigt* is to provide a spray system having a variable flow rate “without affecting the spray impact velocity or fan width.” (*Col. 3, Lines 59-61*) (underlining added). *DeLigt* also specifically recites in its claims that nozzles discharge fluid “at substantially the same velocity and spray width upon impact.” (*Col. 7, Lines 65-68*) (underlining added).

The purpose of *DeLigt* is to provide spray nozzles that have the same spray width. The only “control action” in *DeLigt* is the selection of the sprayers that are spraying material in a particular zone of a sheet, which allows the system of *DeLigt* to control the amount of material being sprayed in that zone. (*See, e.g., Col. 3, Lines 63-68*).

*DeLigt* lacks any mention of performing a second “control action” to manipulate a “cross-directional shape” of the sprayers. There is also nothing in *DeLigt* indicating that a sprayer is “controllable to vary one or more properties of [a] sheet” by varying both “the magnitude and the cross-directional shape within the slice” as recited in Claim 21.

The Office Action does correctly note that certain sprayers in *DeLigt* can be restricted to different flow rates. However, this relates to the magnitude (the amount of material being sprayed), not the “cross-directional shape” of the material being sprayed. The Office Action has

identified nothing in *DeLigt* indicating that both the “magnitude” and the “cross-directional shape” of the spraying can be controlled in *DeLigt*.

The Office Action relies on the prior patent cited in *DeLigt* (U.S. Patent No. 3,989,085) as proof that “the fan spray is a result effective variable that needs to be controlled.” (*Office Action, Page 3, Last paragraph*). However, the Office Action cites nothing in any reference showing any way to control multiple “control actions” of an actuator, where one control action has a “magnitude on a slice” and another control action “manipulate[s] a cross-directional shape within the slice” as recited in Claim 21. More specifically, the Office Action fails to identify anything in *DeLigt* or the prior patent showing any way that the “cross-directional shape” of the sprayers could be controlled. Nothing in *DeLigt* or the prior patent provides a way to control both the “magnitude” and the “cross-directional shape” of the sprayers.

The Office Action’s reliance on U.S. Patent No. 3,989,085 is also improper. That patent appears to contemplate only making adjustments to a valve to control the flow of material through a sprayer. There appears to be just one control action here – adjusting a valve opening. This fails to disclose or suggest an actuator that can perform multiple “control actions,” where one control action has a “magnitude on a slice” and another control action “manipulate[s] a cross-directional shape within the slice” as recited in Claim 21.

The Office Action’s statement regarding “recent advancement in microchips and microcomputers” does not rectify these problems with the § 103 rejection. *DeLigt* provides a spray system where the fan width of sprayers remains constant despite changes in the flow rate of material being sprayed. In other words, *DeLigt* specifically maintains the “cross-directional

shape” of the sprayers. *DeLigt* lacks any mechanism for altering the “cross-directional shape” of the sprayers. “Recent advancement in microchips and microcomputers” cannot magically endow the sprayers of *DeLigt* with an ability of change the “cross-directional shape” of the sprayers.

To the extent the Office Action is relying on “recent advancement in microchips and microcomputers” to endow the sprayers of *DeLigt* with functionality that they do not possess, this is clearly improper. The Office Action has not shown and cannot show that more advanced computers alone would allow the sprayers of *DeLigt* to be controlled in both “magnitude” and “cross-directional shape.”

The Office Action has cited nothing that teaches or suggests an actuator that can perform multiple “control actions,” where one control action has a “magnitude on a slice” and another control action “manipulate[s] a cross-directional shape within the slice” as recited in Claim 21. The Office Action has also cited nothing that teaches or suggests that an actuator is “controllable to vary one or more properties of [a] sheet by varying both the magnitude and the cross-directional shape within the slice” as recited in Claim 21.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection and full allowance of Claims 21, 34, and 35.

SUMMARY

The Applicant respectfully asserts that all pending claims in this application are in condition for allowance and respectfully requests full allowance of the claims.

If any issues arise or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckcarter.com*.


The Commissioner is hereby authorized to charge any fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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